

EPSC PLAN NARRATIVE

1.1 PROJECT DESCRIPTION

THIS PROJECT INVOLVES THE REPLACEMENT OF BRIDGE #52, RELATED CHANNEL WORK AND INCIDENTALS. BRIDGE #52 CONSISTS OF 2 EACH EXISTING 72” CORRUGATED STEEL CULVERTS, WHICH WILL BE REPLACED WITH A 12’ SPAN PRECAST CONCRETE BOX CULVERT TO CONVEY AN UNNAMED TRIBUTARY BENEATH VT ROUTE 30. BRIDGE #52 IS LOCATED IN THE TOWN OF WINHALL ON VT ROUTE 30, 0.05 MILES SOUTH OF THE JUNCTION WITH VERMONT ROUTE 11.

NOTE: AREA OF DISTURBANCE INCLUDES LIMITS OF EARTH DISTURBANCE WITHIN THE PROJECT AREA, AS WELL AS WASTE, BORROW AND STAGING AREAS, AND OTHER EARTH DISTURBING ACTIVITIES WITHIN OR DIRECTLY ADJACENT TO THE PROJECT LIMITS AS SHOWN ON THE ATTACHED EPSC PLAN.

TOTAL AREA OF DISTURBANCE AS SHOWN ON THE ATTACHED EPSC PLAN IS APPROXIMATELY 0.50 ACRES.

IT IS ANTICIPATED THAT THIS PROJECT WILL LAST ONE CONSTRUCTION SEASON.

1.2 SITE INVENTORY

1.2.1 TOPOGRAPHY

THE TOPOGRAPHY OF THE AREA IS A MOUNTAIN DRAINAGE BASIN THAT IS MOSTLY FORESTED WITH A FEW SMALL PONDS. VT ROUTE 30 AND THE ACCESS ROAD TO VT ROUTE 11 ARE WITHIN THE PROJECT SITE. THERE ARE OVERHEAD UTILITIES THAT WILL BE RELOCATED TO NOT IMPACT THE PROJECT.

1.2.2 DRAINAGE, WATERWAYS, BODIES OF WATER, AND PROXIMITY TO NATURAL OR MAN-MADE WATER FEATURES

THE WATER SOURCE ON THE PROJECT IS AN UNNAMED TRIBUTARY. THE TOTAL CONTRIBUTING DRAINAGE AREA IS 0.7 SQ. MI. DUE TO THE NATURE OF THE SURROUNDING TERRAIN THE PROJECT SITE COULD RECEIVE RUNOFF FROM THE SURROUNDING SLOPES, ROADWAY DITCHES, AND THE ROADWAY OVER TOP OF THE CULVERT.THERE ARE CLASS II WETLANDS ON THE EAST AND WEST SIDES OF THE PROJECT AT THE INLET AND OUTLET. SEE THE PROJECT IMPACTS PLANS.

1.2.3 VEGETATION

THE VEGETATION IN THE PROJECT AREA CONSISTS OF FOREST LAND WITH SMALL TREES AND BRUSH ON THE BANKS FO THE STREAM. THE IMPACT TO VEGETATION WILL BE LIMITED TO THAT WHICH IS RELATED TO THE EXCAVATION REQUIRED FOR THE INSTALLATION OF THE CULVERT, HEADWALLS, WINGWALLS, STONE FILL, AND TEMPORARY ACCESS. UPON PROJECT COMPLETION, THE CHANNEL AND DISTURBED AREAS WITH SLOPES GREATER THAN 2:1 WILL BE ARMORED WITH STONE FILL TYPE II AT THE INLET AND AT THE OUTLET AS SPECIFIED ON THE PLANS. DISTURBED VEGETATION WILL BE REESTABLISHED WITH STANDARD SEED AND MULCH PRACTICES.

1.2.4 SOILS

ALL SOIL DATA CAME FROM THE U.S. DEPARTMENT OF AGRICULTURE SOIL CONSERVATION SERVICE FOR THE COUNTY OF ORLEANS, VERMONT. SOILS ON THE PROJECT SITE ARE ADRIAN AND SACO SOILS, 0 TO 2 PERCENT SLOPES, “K FACTOR” = 0.15. THE SOIL IS CONSIDERED LOW EROSION POTENTIAL DUE TO THE K-VALUE.

NOTE: K-VALUES GENERALLY INDICATE THE FOLLOWING:
0.0-0.23 = LOW EROSION POTENTIAL
0.24-0.36 = MODERATE EROSION POTENTIAL
0.37 AND HIGHER = HIGH EROSION POTENTIAL

1.2.5 SENSITIVE RESOURCE AREAS

CRITICAL HABITATS: NO
HISTORICAL OR ARCHEOLOGICAL AREAS: NO
PRIME AGRICULTURAL LAND: NO
THREATENED AND ENDANGERED SPECIES: NO
WATER RESOURCE: UNNAMED TRIBUTARY
WETLANDS: THERE ARE WETLANDS AT THE INLET AND OUTLET OF THE STRUCTURE. SEE THE PROJECT IMPACTS PLANS.

1.3 RISK EVALUATION

THIS PROJECT DOES NOT FALL UNDER THE JURISDICTION OF GENERAL PERMIT 3-9020 FOR STORMWATER RUNOFF FROM CONSTRUCTION SITES. SHOULD CHANGES PRIOR TO OR DURING CONSTRUCTION RESULT IN ONE OR MORE ACRES OF EARTH DISTURBANCE OR SHOULD THE PROJECT BECOME PART OF A LARGER PLAN OF DEVELOPMENT, THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY ADDITIONAL PERMITTING.

1.4 EROSION PREVENTION AND SEDIMENT CONTROL

THE EROSION CONTROL PLANS ARE MEANT AS A GUIDELINE FOR PREVENTING EROSION AND CONTROLLING SEDIMENT TRANSPORT. THE PRINCIPLES OUTLINED IN THIS NARRATIVE CONSIST OF APPLYING MEASURES THROUGHOUT CONSTRUCTION OF THE PROJECT IN ORDER TO MINIMIZE SEDIMENT TRANSPORT TO THE RECEIVING WATERS. THE MEASURES INCLUDE STABILIZATION AND STRUCTURAL PRACTICES, STORM WATER CONTROLS AND OTHER POLLUTION PREVENTION PRACTICES. THEY HAVE BEEN PROPOSED BY THE DESIGNER AS A BASIS FOR PROTECTING RESOURCES AND WILL NEED TO BE BUILT UPON BASED ON THE SPECIFIC MEANS AND METHODS OF THE CONTRACTOR. REFER TO THE LOW RISK SITE HANDBOOK AND APPROPRIATE DETAIL SHEETS FOR SPECIFIC GUIDANCE AND CONSTRUCTION DETAILING. THE CONTRACTOR IS RESPONSIBLE FOR DEVELOPING AND SUBMITTING AN EPSC PLAN IN ACCORDANCE WITH SECTION 652 OF THE SPECIAL PROVISIONS.

IN ADDITON, THE CONTRACTOR SHALL DESIGN AND IMPLEMENT A TEMPORARY STREAM DIVERSION, INCLUDING EPSC MEASURES IN ACCORDANCE WITH ITEM 900.645, SPECIAL PROVISION (TEMPORARY RELOCATION OF STREAM).

ALL MEASURES SHALL BE REGULARLY MAINTAINED AND SHALL BE CHECKED FOR SEDIMENT BUILD-UP. SEDIMENT SHALL BE DISPOSED OF AT AN APPROVED SITE WHERE IT WILL NOT BE SUBJECT TO EROSION.

1.4.1 MARK SITE BOUNDARIES

SITE BOUNDARIES AND AREAS CONSTRUCTION EQUIPMENT CAN ACCESS SHALL BE DELINEATED.

PROJECT DEMARCATION FENCING (PDF) SHALL BE USED TO PHYSICALLY MARK SITE BOUNDARIES.

1.4.2 LIMIT DISTURBANCE AREA

PREVENTING INITIAL SOIL EROSION BY MINIMIZING THE EXPOSED AREA IS MUCH MORE EFFECTIVE THAN TREATING ERODED SEDIMENT. EARTH DISTURBANCE CAN BE MINIMIZED THROUGH CONSTRUCTION PHASING BY ONLY OPENING UP EARTH AS NECESSARY. THIS CAN LIMIT THE AREA THAT WILL BE DISTURBED AND EXPOSED TO EROSION. EMPLOY TEMPORARY CONSTRUCTION STABILIZATION PRACTICES IN INCREMENTAL STAGES AS PHASES CHANGE. FOR PROJECTS WHICH FALL UNDER THE CONSTRUCTION GENERAL PERMIT, ONLY THE ACREAGE LISTED ON THE PERMIT AUTHORIZATION MAY BE EXPOSED AT ANY GIVEN TIME.

MAINTAINING VEGETATED BUFFERS ALONG STREAM BANKS, WETLANDS OR OTHER SENSITIVE AREAS IS A CRUCIAL EROSION AND SEDIMENT CONTROL MEASURE THAT SHOULD BE ESTABLISHED WHEREVER POSSIBLE.

1.4.3 SITE ENTRANCE/EXIT STABILIZATION

TRACKING OF SEDIMENT ONTO PUBLIC HIGHWAYS SHALL BE MINIMIZED TO REDUCE THE POTENTIAL FOR RUNOFF ENTERING RECEIVING WATERS. INSTALLATION SHALL COINCIDE WITH THE CONTRACTOR’S PROGRESS SCHEDULE.

STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AS PROPOSED ON THE EPSC PLAN AND ANYWHERE EQUIPMENT WILL BE GOING FROM AREAS OF EXPOSED SOILS TO PAVED SURFACES.

1.4.4 INSTALL SEDIMENT BARRIERS

SEDIMENT BARRIERS SHALL BE UTILIZED TO INTERCEPT RUNOFF AND ALLOW SUSPENDED SEDIMENT TO SETTLE OUT. THEY SHALL BE INSTALLED PRIOR TO ANY UP SLOPE WORK.

SILT FENCE WILL BE INSTALLED AS PROPOSED ON THE EPSC PLAN.

1.4.5 DIVERT UPLAND RUNOFF

DIVERSIONARY MEASURES SHALL BE USED TO INTERCEPT RUNOFF FROM ABOVE THE CONSTRUCTION AND DIRECT IT AROUND THE DISTURBED AREA SO THAT CLEAN WATER DOES NOT BECOME MUDDIED WHILE TRAVELING OVER EXPOSED SOILS ON THE CONSTRUCTION SITE.

THE PROJECT AREA IS RELATIVELY FLAT WITH MINIMAL OFF-SITE RUNOFF FLOWING THROUGH THE SITE. THEREFORE DIVERSION MEASURES WILL NOT BE NECESSARY.

1.4.6 SLOW DOWN CHANNELIZED RUNOFF

CHECK STRUCTURES SHALL BE UTILIZED TO REDUCE THE VELOCITY, AND THUS THE EROSION POTENTIAL, OF CONCENTRATED FLOW IN CHANNELS.

STONE CHECK DAMS WILL BE INSTALLED AS NEEDED AND AS DIRECTED BY THE ENGINEER.

1.4.8 STABILIZE EXPOSED SOILS DURING CONSTRUCTION

ALL AREAS OF DISTURBANCE MUST HAVE TEMPORARY STABILIZATION IN PLACE WITHIN 48 HOURS OF DISTURBANCE OR IN ACCORDANCE WITH THE CONSTRUCTION GENERAL PERMIT 3-9020 AUTHORIZATION.

SURFACE ROUGHENING OF ALL EXPOSED SLOPES, COMBINED WITH TEMPORARY MULCHING, SHALL BE UTILIZED ON A REGULAR BASIS. BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED TO STABILIZE ALL SLOPES STEEPER THAN 1:3.

THE FORECAST OF RAINFALL EVENTS SHALL TRIGGER IMMEDIATE PROTECTION OF EXPOSED SOILS.

1.4.9 WINTER STABILIZATION

VARIOUS MEASURES SPECIFIC TO WINTER MAY BE NECESSARY SHOULD THE PROJECT EXTEND INTO WINTER (OCTOBER 15 THROUGH APRIL 15). REFER TO THE LOW RISK SITE HANDBOOK FOR GUIDANCE.

1.4.10 STABILIZE SOIL AT FINAL GRADE

EXPOSED SOIL MUST BE STABILIZED WITHIN 48 HOURS OF REACHING FINAL GRADE.

SEED, MULCH, FERTILIZER AND LIME SHALL BE USED TO ESTABLISH PERMANENT VEGETATION. FOR SLOPES STEEPER THAN 1:3, BIODEGRADABLE EROSION CONTROL MATTING OR AN EQUIVALENT SHALL BE USED INSTEAD OF MULCH.

1.4.11 DE-WATERING ACTIVITIES

DISCHARGE FROM DEWATERING ACTIVITIES THAT FLOWS OFF OF THE CONSTRUCTION SITE MUST NOT CAUSE OR CONTRIBUTE TO A VIOLATION OF THE VERMONT WATER QUALITY STANDARDS.

SEDIMENT CONTAINMENT BAGS WILL BE UTILIZED ON THE SLOPE. AN AREA WILL BE EXCAVATED TO ALLOW THE BAG TO SIT LEVEL.

1.4.12 INSPECT YOUR SITE

INSPECT THE PROJECT SITE BASED ON SPECIAL PROVISION REQUIREMENTS.

1.5 SEQUENCE AND STAGING

1.5.a ISTALLATION OF TEMPORARY STREAM DIVERSION
PDF PER PLANS
SILT FENCE PER PLANS
PLACEMENT OF PIPE PER PLANS
SHEET PILE COFFER DAM PER PLANS
PROTECTION OF ANY ERODABLE AREAS PER PLANS

1.5.b EXCAVATION
STOCKPILE PROTECTION PER PLANS
TRACKING PAD PER DETAIL AS NEEDED
LOCALIZED DEWATERING TO SILT BAG IN THE ROW AS NEEDED

1.5.c INSTALLATION OF BOX CULVERT
INSTALL PRECAST
INSTALL STREAM BEDDING MATERIAL
INSTALL STONE FILL AND GRUBBING MATERIAL
SEED MULCH OR EROSION FABRIC

1.5.d DIVERT WATER TO NEW CULVERT
REMOVE SHEET PILE COFFER DAM
REMOVE WATER DIVERSION PIPE

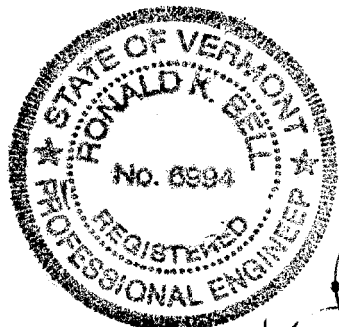
1.5.e FINISHES
PERFORM ROAD WORK AND PAVING
CLEAN UP STOCK PILE AND FINAL EPSC MEASURES

1.5.2 OFF SITE ACTIVITIES
AN EXEMPT STAGING AREA HAS BEEN SET UP IN THE BROMLEY PARKING LOT
LOCAL STOCK PILE AREA IN THE TRIANGLE MEDIAN WILL BE UTILIZED

1.6 CONTACT INFORMATION

1.6.1 ON SITE PLAN COORDINATOR
PRIMARY
DUANE FLETCHER 1-802-258-1863
20 + YEARS OF HEAVY CONSTRUCTION EXPERIENCE AND EROSION CONTROL IMPLEMENTATION AND INSPECTION
SECONDARY
CHARLIE EZEQUELLE 1-802-365-1944
15 YEARS OF HEAVY CONSTRUCTION EXPERIENCE WITH 5 YEARS OF EPSC PLAN DEVELOPMENT, IMPLEMENTATION AND INSPECTION

CONTINUOUS ONSITE REPRESENTATIVE
ROGER FARNSWORTH 802-380-0444
40 YEARS OF HEAVY CONSTRUCTION EXPERIENCE WITH 10 YEARS OF EPSC IMPLEMENTATION AND INSPECTION



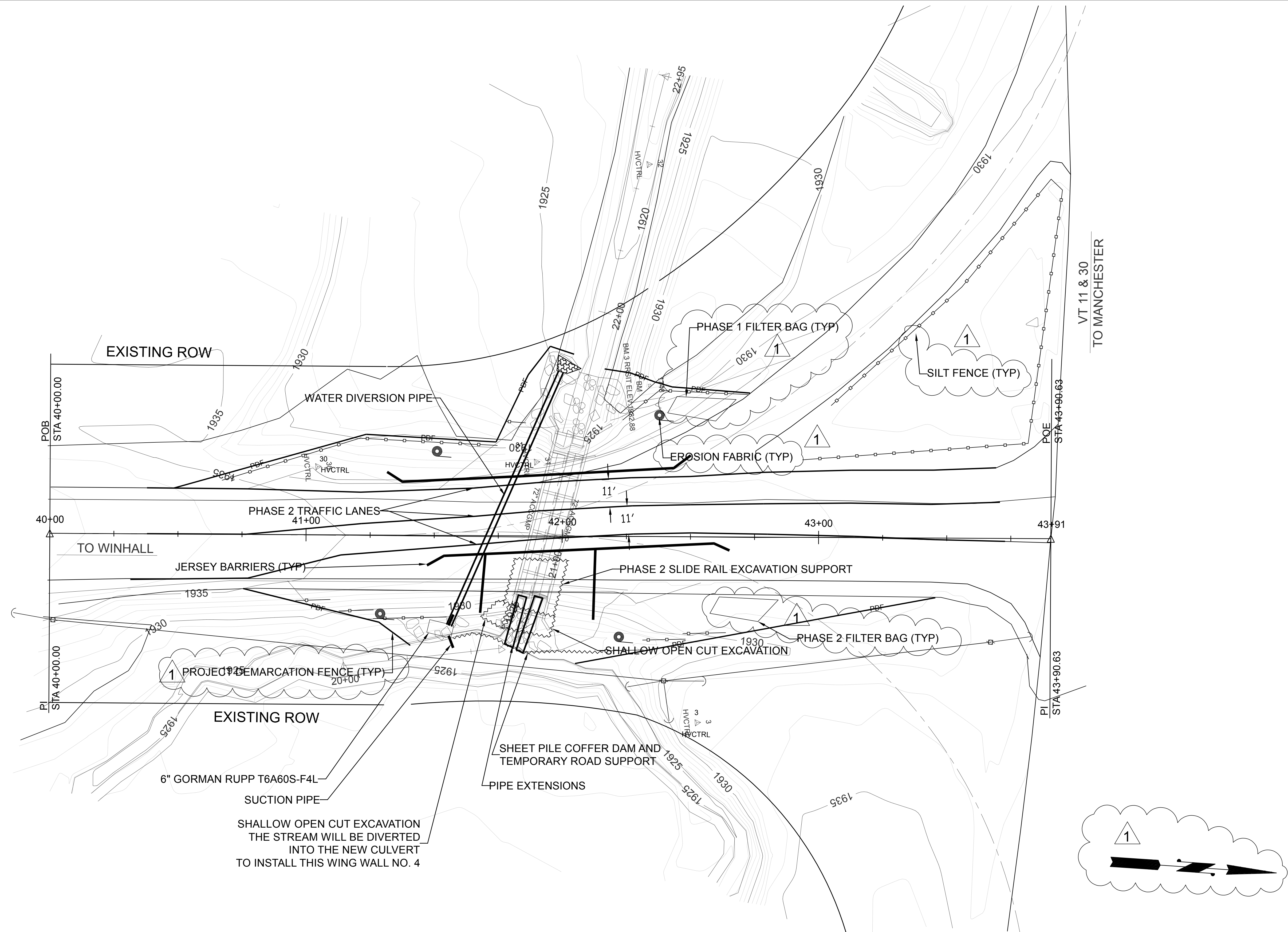
Ronald K. Bell

REV. NO.	DATE:
1	05/06/15

RENAUD BROS. INC.

285 FT. BRIDGEMAN RD. VERNON VT., 05554
PH. (802) 251-7585 FAX: (802) 251-7508

EPSC NARRATIVE BRIDGE 52		
PROJECT NAME:	WINHALL	SHEET NO. 1
PROJECT NO:	STP CULV (31)	
DRAWN BY:	CHK'D BY:	OF 8
CE	04/16/2015	



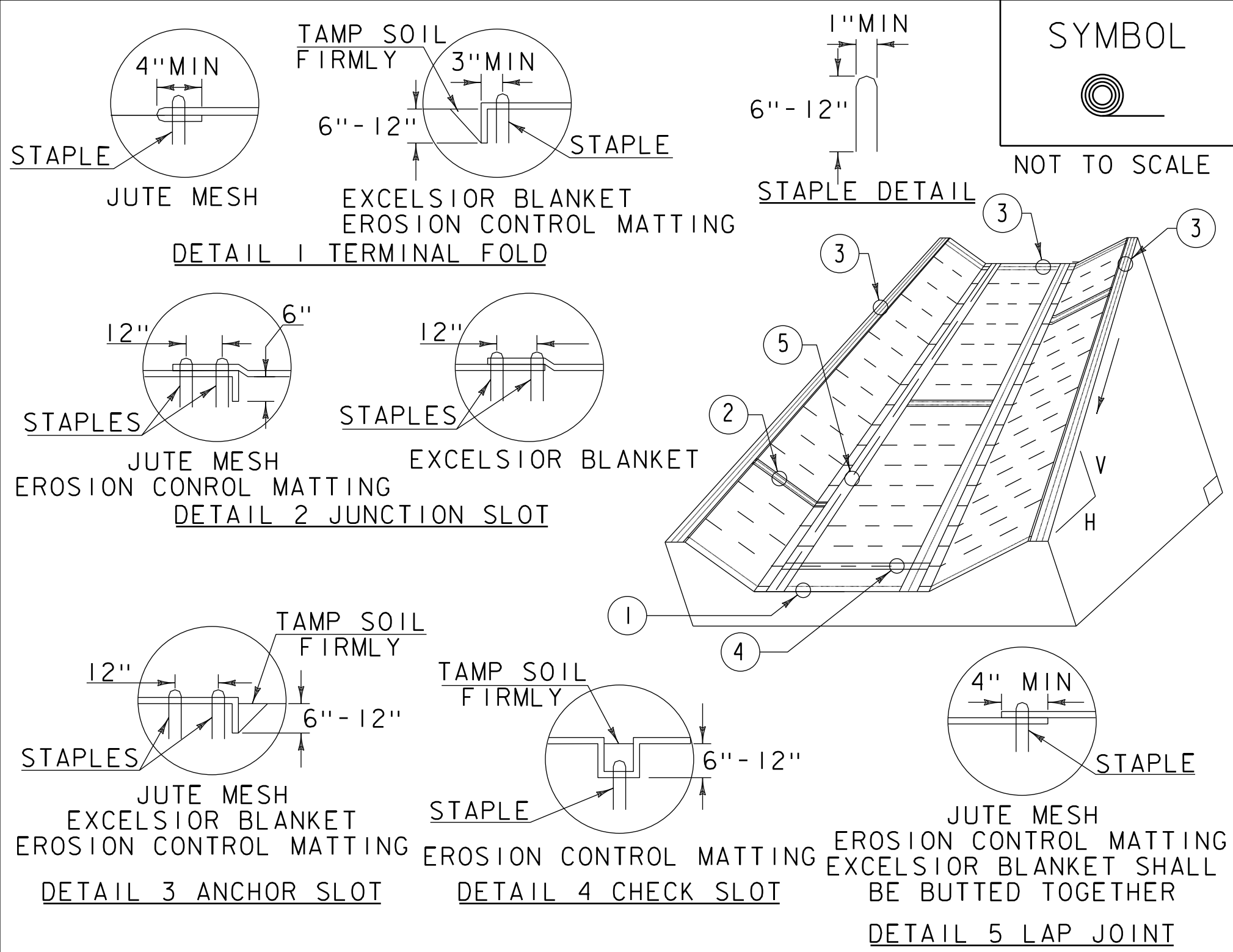
BRIDGE 52 EROSION CONTROL PLAN 2
SCALE 1" = 20'-0"

REV. NO.	DATE:
1	05/06/15

RENAUD BROS. INC.

2835 FT. BRIDGEMAN RD. VERNON VT. 05554
PH. (802) 251-7585 FAX (802) 251-7508

SHEET NAME:				BRIDGE 52 EROSION CONTROL PLAN			
PROJECT NAME:			WINHALL			SHEET NO. 3 OF 8	
PROJECT NO:			STP CULV (31)				
DRAWN BY:		CHK'D BY:		DATE:			
CE				04/16/2015			



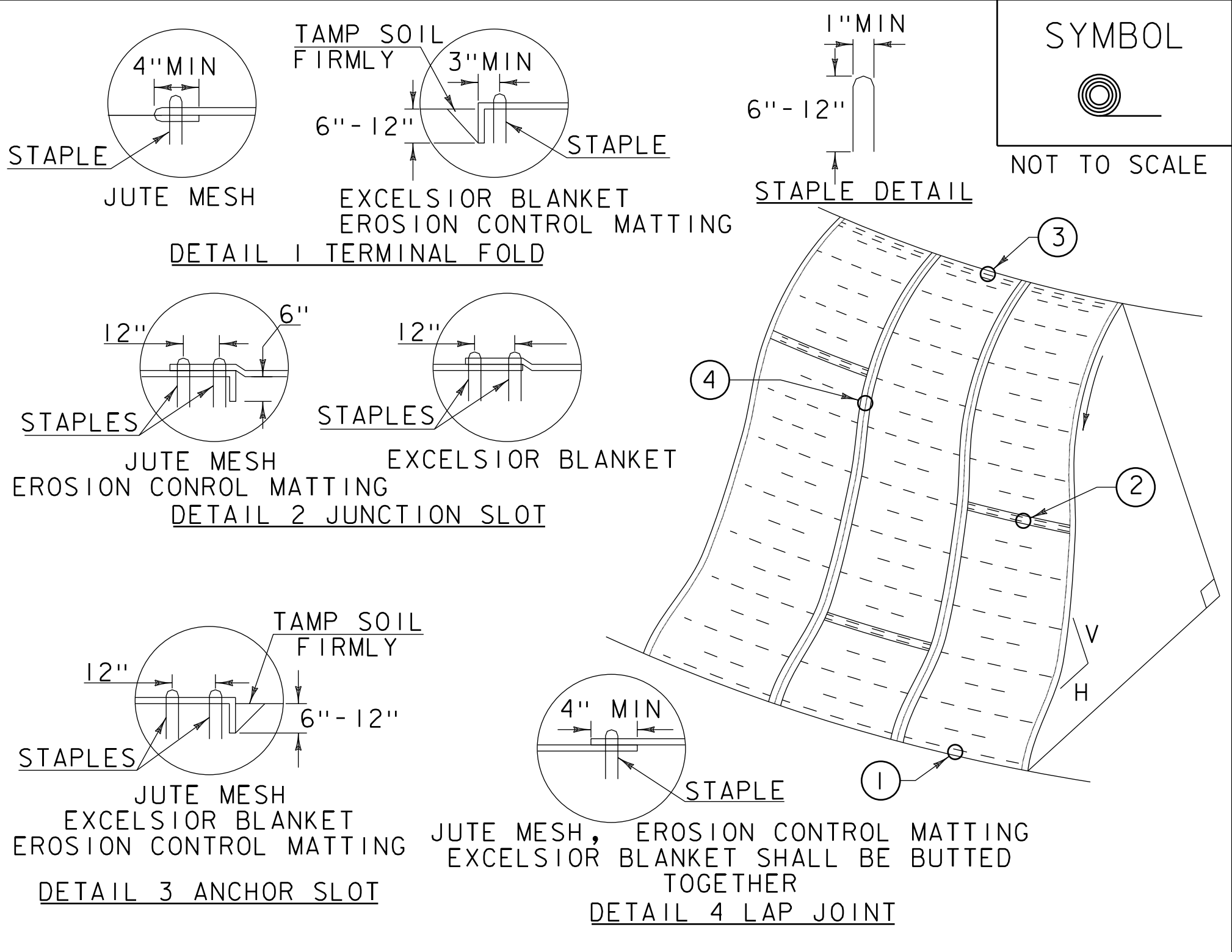
- CONSTRUCTION SPECIFICATIONS**
1. EROSION MATTING, CHECK SLOTS, SHALL BE SPACED IN DITCH CHANNEL SO THAT ONE OCCURS WITHIN EACH 50' ON SLOPES OF MORE THAN 4% AND LESS THAN 6%. ON SLOPES OF 6% OR MORE, THEY SHALL BE SPACED SO THAT ONE OCCURS WITHIN EACH 25'.
 2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
 3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4' X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' ROLL OF MATERIAL.
 4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
 5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION
CONTROL PRODUCT
(RECP) DITCH

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR
EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM
THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL
GUIDANCE.
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION
653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION
MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING
(PAY ITEM 653.21).

REVISIONS	
MARCH 8, 2007	JMF
APRIL 16, 2007	WHF
JANUARY 13, 2009	WHF



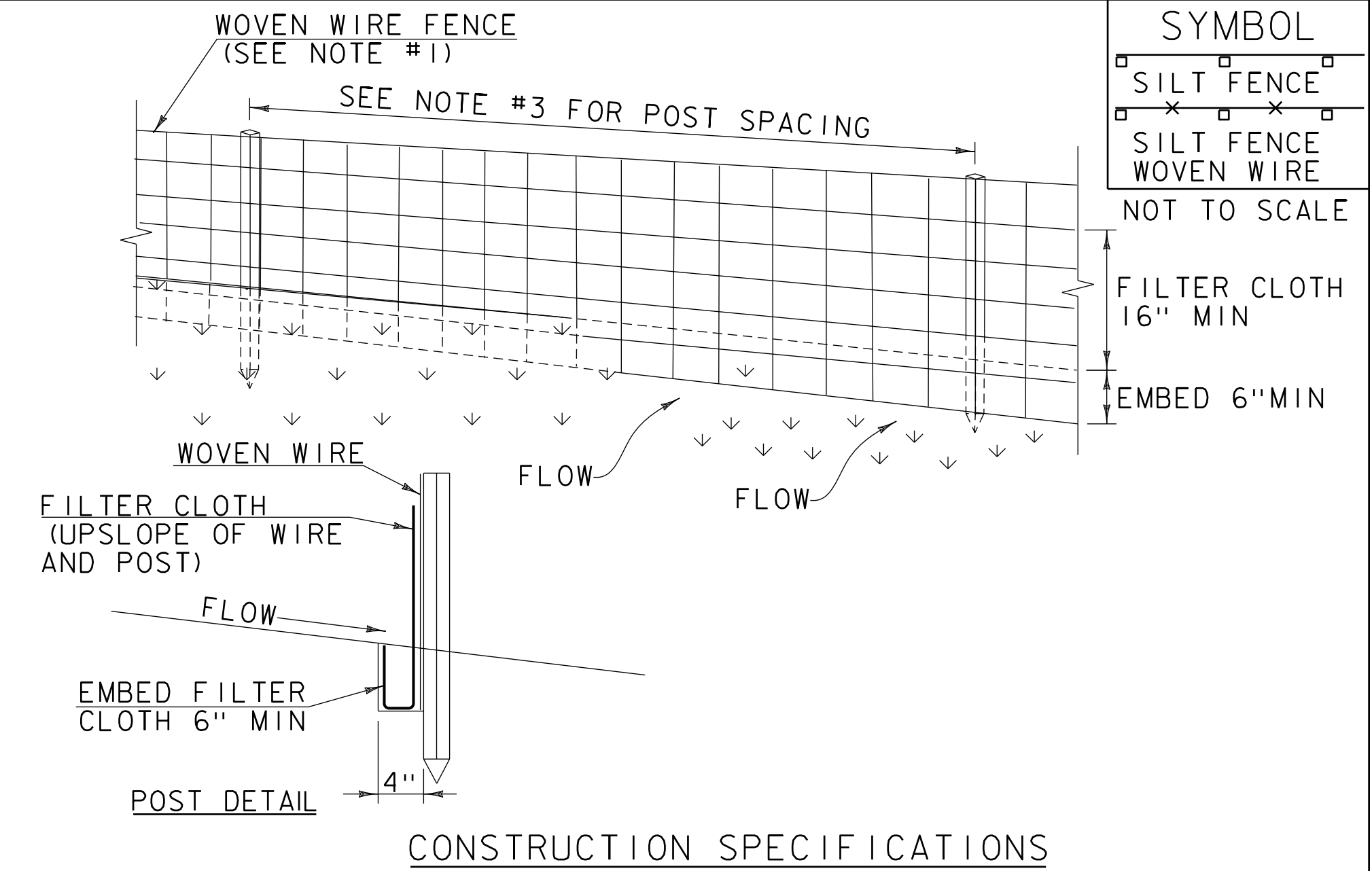
- CONSTRUCTION SPECIFICATIONS**
1. APPLY TO SLOPES GREATER THAN 3H:1V OR WHERE NECESSARY TO AID IN ESTABLISHING VEGETATION.
 2. APPLY FERTILIZER, LIME SEED PRIOR TO PLACING MATTING.
 3. STAPLES ARE TO BE PLACED ALTERNATELY, IN COLUMNS APPROXIMATELY 2' APART AND IN ROWS APPROXIMATELY 3' APART. APPROXIMATELY 175 STAPLES ARE REQUIRED PER 4' X 225' ROLL OF MATERIAL AND 125 STAPLES ARE REQUIRED PER 4' X 150' ROLL OF MATERIAL.
 4. DISTURBED AREAS SHALL BE SMOOTHLY GRADED. EROSION CONTROL MATERIAL SHALL BE PLACED LOOSELY OVER GROUND SURFACE. DO NOT STRETCH.
 5. ALL TERMINAL ENDS AND TRANSVERSE LAPS SHALL BE STAPLED AT APPROXIMATELY 12" INTERVALS.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

ROLLED EROSION
CONTROL PRODUCT
(RECP) SIDE SLOPE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR
EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM
THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL
GUIDANCE.
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION
653 AND AS SHOWN IN THE PLANS FOR TEMPORARY EROSION
MATTING (PAY ITEM 653.20) OR PERMANENT EROSION MATTING
(PAY ITEM 653.21).

REVISIONS	
APRIL 16, 2007	JMF
JANUARY 13, 2009	WHF



- CONSTRUCTION SPECIFICATIONS**
1. WOVEN WIRE REINFORCED FENCE IS REQUIRED WITHIN 100' UPSLOPE OF RECEIVING WATERS WHEN THE PROJECT FALLS UNDER A CONSTRUCTION STORMWATER PERMIT. WOVEN WIRE SHALL BE A MIN. 14 GAUGE WITH A 6" MAX. MESH OPENING.
 2. FILTER CLOTH SHALL BE EITHER FILTER X, MIRAF1100X, STABILINKA T140N OR APPROVED EQUIVALENT.
 3. POST SPACING FOR WIRE-BACKED FENCE SHALL BE 10' MAXIMUM. FOR FILTER-CLOTH FENCE, WHEN ELONGATION IS >50%, POST SPACING SHALL NOT EXCEED 4' AND WHEN ELONGATION IS <50%, POST SPACING SHALL NOT EXCEED 6'.
 4. WOVEN WIRE FENCE IS TO BE FASTENED SECURELY TO FENCE POSTS WITH WIRE TIES. FILTER CLOTH IS TO BE FASTENED SECURELY TO WOVEN WIRE FENCE WITH TIES SPACED EVERY 24" AT TOP AND MID SECTION.
 5. WHEN TWO SECTIONS OF FILTER CLOTH ADJOIN EACH OTHER THEY SHALL BE OVER-LAPPED BY 6" AND FOLDED.
 6. MAINTENANCE SHALL BE PERFORMED AS NEEDED AND MATERIAL REMOVED WHEN SEDIMENT REACHES HALF OF FABRIC HEIGHT.

ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SILT FENCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR
EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM
THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL
GUIDANCE.
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH
SECTION 649 AND AS SHOWN IN THE PLANS FOR GEOTEXTILE
FOR SILT FENCE (PAY ITEM 649.51) OR GEOTEXTILE FOR
SILT FENCE, WOVEN WIRE REINFORCED (PAY ITEM 649.515).

REVISIONS	
MARCH 21, 2008	WHF
DECEMBER 11, 2008	WHF
JANUARY 13, 2009	WHF

REV. NO. DATE:

RENAUD BROS. INC.

285 FT. BRIDGEMAN RD. VERNON VT, 05554
PH: (802) 251-7585 FAX: (802) 251-7508

SHEET NAME:
EPSC DETAILS 1 BRIDGE 52

PROJECT NAME:
WINHALL

PROJECT NO:
STP CULV (31)

DRAWN BY: CE

CHK'D BY:

DATE:
04/16/2015

SHEET NO.
4

OF
8

VAOT RURAL AREA MIX					
	LBS/AC				
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %
37.5%	22.5	45	CREEPING RED FESCUE	85%	98%
37.5%	22.5	45	TALL FESCUE	90%	95%
5.0%	3	6	RED TOP	90%	95%
15.0%	9	18	BIRDSFOOT TREFOIL	85%	98%
5.0%	3	6	ANNUAL RYE GRASS	85%	95%
100%	60	120			

VAOT URBAN AREA MIX					
	LBS/AC				
% WEIGHT	BROADCAST	HYDROSEED	NAME	GERM %	PURITY %
42.5%	34	68	CREEPING RED FESCUE	85%	98%
10.0%	8	16	PERENNIAL RYE GRASS	90%	95%
42.5%	34	68	KENTUCKY BLUE GRASS	85%	85%
5.0%	4	8	ANNUAL RYE GRASS	85%	95%
100%	80	160			

SOIL AMENDMENT GUIDANCE			
FERTILIZER		LIME	
BROADCAST	HYDROSEED	BROADCAST	HYDROSEED
10-20-10	FOLLOW	PELLETIZED	FOLLOW
500 LBS/AC	MANUFACTURER	2 TONS/AC	MANUFACTURER

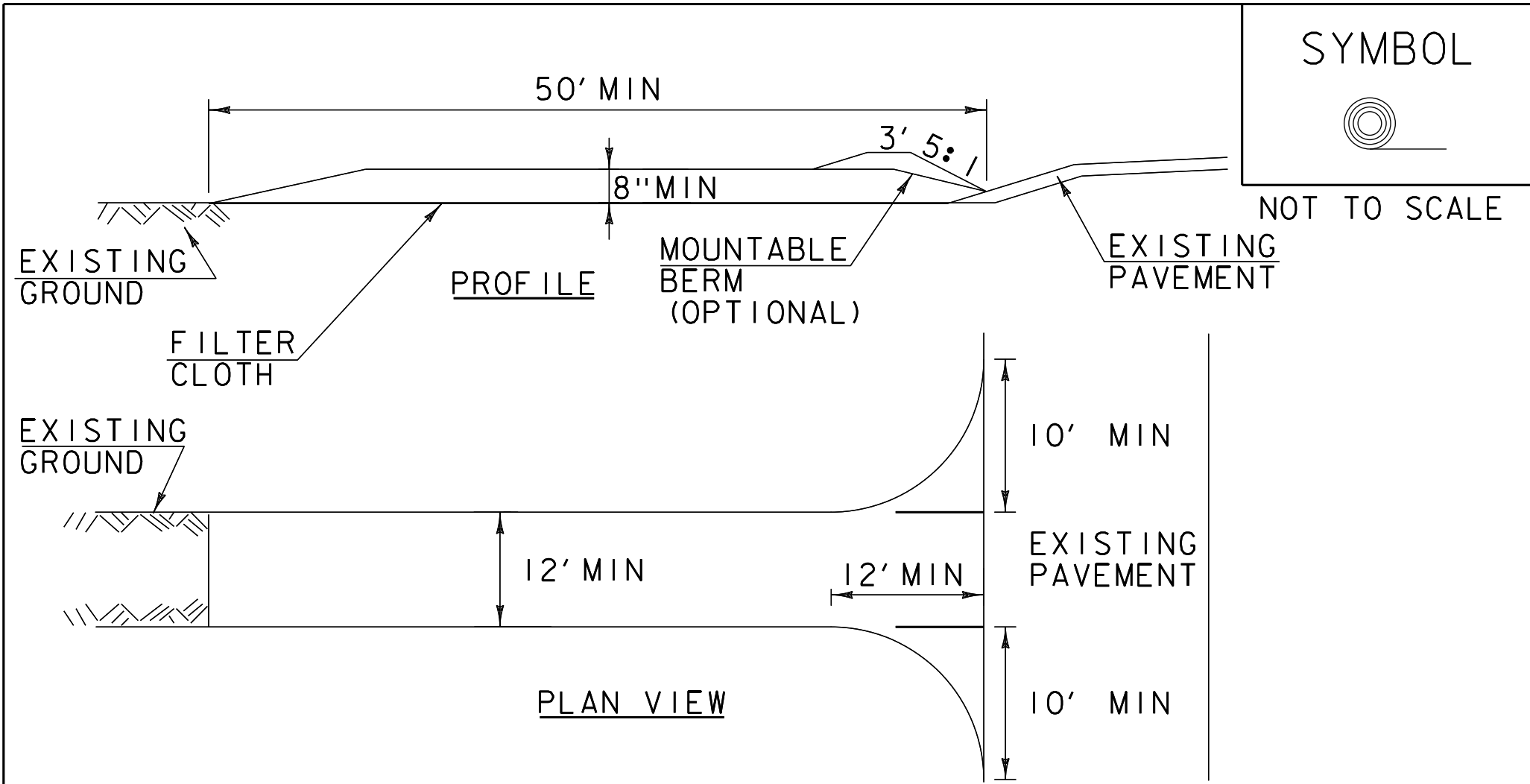
CONSTRUCTION GUIDANCE

- 1.RURAL SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED UPLAND (NON WETLAND) AREAS DISTURBED BY THE CONTRACTOR.
- 2.URBAN SEED MIX: USE AS INDICATED IN THE PLANS AND/OR FOR ALL ESTABLISHED LAWN AREAS DISTURBED BY THE CONTRACTOR.
- 3.ALL SEED MIXTURES: SHALL NOT HAVE A WEED CONTENT EXCEEDING 0.40% BY WEIGHT AND SHALL BE FREE OF ALL NOXIOUS SEED.
- 4.FERTILIZER AND LIMESTONE: SHALL FOLLOW RATES SHOWN ON PLAN OR AS DIRECTED BY THE ENGINEER
- 5.HAY MULCH: TO BE PLACED ON EARTH SLOPES AT THE RATE OF 2 TONS/ACRE , ACHIEVE 90% GROUND COVER OR AS DIRECTED BY THE ENGINEER.
- 6.TOPSOIL: TO BE USED WITH SEED AS INDICATED ON THE PLANS , OR AS DIRECTED BY THE ENGINEER.
- 7.HYDROSEEDING: ALTHOUGH GUIDANCE IS GIVEN ABOVE THE SITE CONDITIONS AND THE TYPE OF HYDROSEED WILL ULTIMATELY DICTATE THE AMOUNTS AND TYPES OF SOIL AMENDMENTS TO BE APPLIED
- 8.TURF ESTABLISHMENT: PLACING SEED, FERTILIZER, LIME AND MULCH PRIOR TO SEPTEMBER 15 AND AFTER APRIL 15 CAN BETTER ENSURE A VIGOROUS GROWTH OF GRASS.

ADAPTED FROM VTRANS TECHNICAL LANDSCAPE MANUAL FOR ROADWAYS AND TRANSPORTATION FACILITIES

TURF ESTABLISHMENT

REVISIONS		
JUNE 23, 2009	WHF	
JANUARY 15, 2010	WHF	
FEBRUARY 16, 2011	WHF	



CONSTRUCTION SPECIFICATIONS

- 1.STONE SIZE- USE 1-4" STONE , RECLAIMED OR RECYCLED CONCRETE EQUIVALENT.
- 2.LENGTH- NOT LESS THAN 50' (EXCEPT ON A SINGLE RESIDENCE LOT WHERE A 30' MINIMUM LENGTH APPLIES).
- 3.THICKNESS- NOT LESS THAN 8".
- 4.WIDTH- 12' MINIMUM, BUT NOT LESS THAN THE FULL WIDTH AT POINTS WHERE INGRESS OR EGRESS OCCURS. 24' IF SINGLE ENTRANCE TO SITE.
- 5.GEOTEXTILE MUST BE PLACED OVER THE ENTIRE AREA PRIOR TO PLACING STONE.
- 6.SURFACE WATER- ALL SURFACE WATER FLOWING OR DIVERTED TOWARD CONSTRUCTION ENTRANCES SHALL BE PIPED BENEATH THE ENTRANCE. IF PIPING IS IMPRACTICAL, A MOUNTABLE BERM WITH 5:1 SLOPES WILL BE PERMITTED.
- 7.MAINTENANCE- THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC RIGHTS-OF-WAY, ALL SEDIMENT SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC RIGHTS-OF-WAY MUST BE REMOVED IMMEDIATELY.
- 8.WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH STONE AND WHICH DRAINS INTO AN APPROVED SEDIMENT TRAPPING DEVICE.
- 9.PERIODIC INSPECTION AND NEEDED MAINTENANCE SHALL BE PROVIDED ACCORDING TO PERMIT REQUIREMENTS.

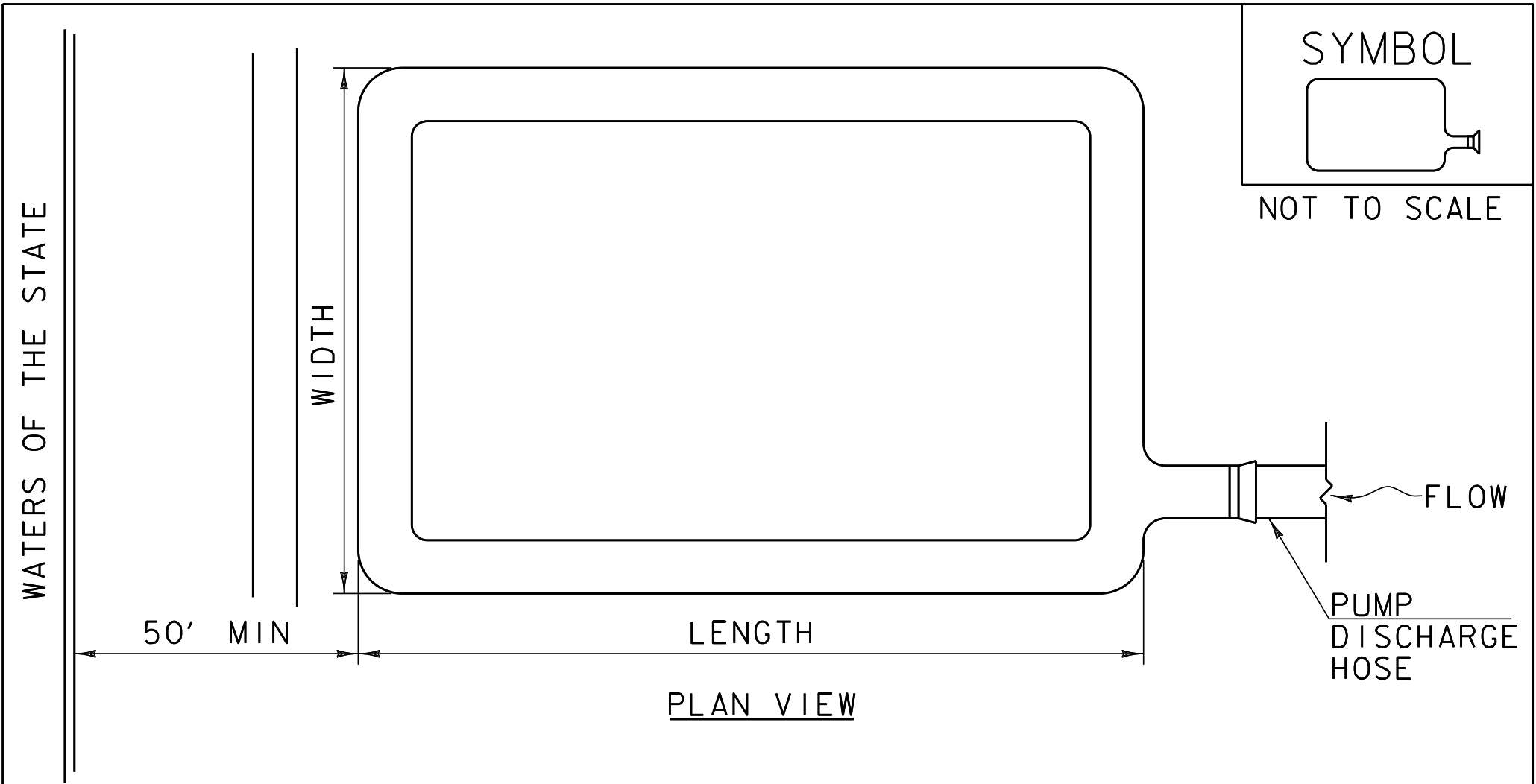
ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

STABILIZED
CONSTRUCTION
ENTRANCE

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR VEHICLE TRACKING PAD (PAY ITEM 653.35) OR AS SPECIFIED IN THE CONTRACT.

REVISIONS		
MARCH 24, 2008	WHF	
JANUARY 13, 2009	WHF	



CONSTRUCTION SPECIFICATIONS

1. THE PRIMARY PURPOSE OF FILTER BAG IS TO RETAIN SILT, SAND, AND FINES DURING DEWATERING OPERATIONS.
2. FILTER BAGS SHALL BE INSTALLED ON A VEGETATED SLOPE GRADED TO ALLOW INCOMING WATER TO FLOW THROUGH THE BAG.
3. FILTER BAGS MAY ALSO BE PLACED ON COARSE AGGREGATE, STONE, OR HAYBALES TO INCREASE FILTRATION EFFICIENCY.
4. FILTER BAGS SHALL BE LOCATED A MINIMUM OF 50' FROM WATERS OF THE STATE UNLESS OTHERWISE APPROVED BY THE ENGINEER.
5. THE NECK OF THE FILTER BAG SHALL BE STRAPPED TIGHTLY TO THE DISCHARGE HOSE.
6. A FILTER BAG IS FULL WHEN IT NO LONGER CAN EFFICIENTLY FILTER SEDIMENT OR ALLOW WATER TO PASS AT A REASONABLE RATE.
7. FILTER BAG SHALL BE DISPOSED OF AS APPROVED IN THE EPSC PLAN OR AS DIRECTED BY THE ENGINEER.

FILTER BAG

NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL GUIDANCE.

THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH SECTION 653 FOR FILTER BAG (PAY ITEM 653.45) AND AS SPECIFIED IN THE CONTRACT.

REVISIONS		
MARCH 24, 2008	WHF	
JANUARY 13, 2009	WHF	

REV. NO. DATE:

RENAUD BROS. INC.

285 FT. BRIDGEMAN RD. VERNON VT., 05554
PH: (802) 251-7383 FAX: (802) 251-7308

SHEET NAME: EPSC DETAILS 2 BRIDGE 52

PROJECT NAME: WINHALL

PROJECT NO: STP CULV (31)

DRAWN BY: CE

CHK'D BY:

DATE:

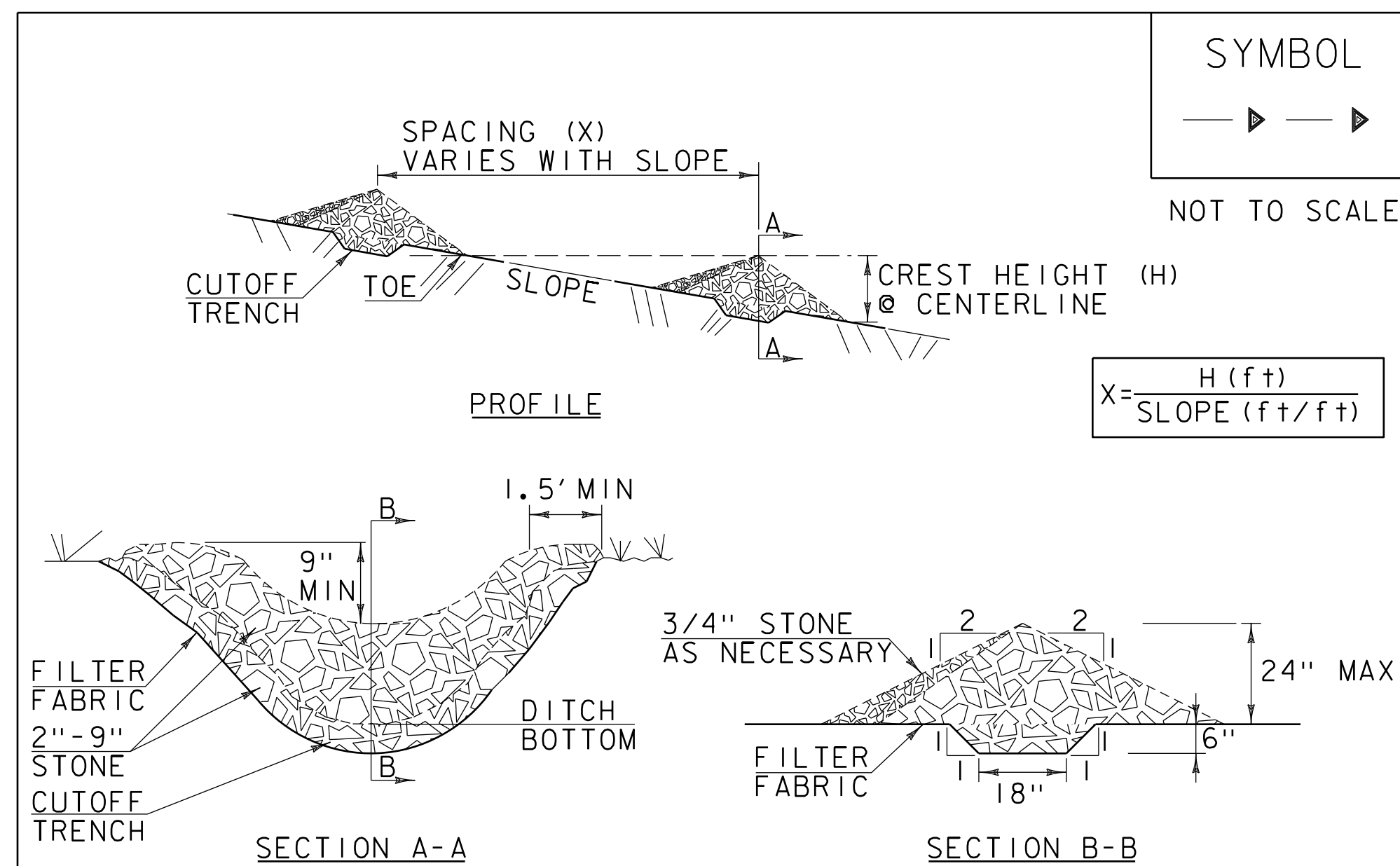
04/16/2015

SHEET NO.

5

OF

8



CONSTRUCTION SPECIFICATIONS

1. STONE WILL BE PLACED ON A FILTER FABRIC FOUNDATION.
2. CHECK DAMS SHALL BE SPACED SO THAT THE ELEVATION OF THE CREST OF THE DOWNSTREAM DAM IS AT THE SAME ELEVATION AS THE TOE OF THE UPSTREAM DAM.
3. 3/4" FILTERING STONE MAY BE ADDED TO THE FACE OF THE CHECK DAM AS NECESSARY.
4. EXTEND THE STONE A MINIMUM OF 1.5' BEYOND THE DITCH BANKS TO PREVENT CUTTING AROUND THE DAM.
5. PROTECT CHANNEL DOWNSTREAM OF THE LOWEST CHECK DAM FROM SCOUR AND EROSION WITH STONE OR LINER AS APPROPRIATE.
6. ENSURE THAT CHANNEL APPURTENANCES SUCH AS CULVERT ENTRANCES BELOW CHECK DAMS ARE NOT SUBJECT TO DAMAGE OR BLOCKAGE FROM DISPLACED STONE.
7. MAXIMUM DRAINAGE AREA 2 ACRES.


ADAPTED FROM DETAILS PROVIDED BY: NEW YORK STATE DEC
ORIGINALLY DEVELOPED BY USDA-NRCS
VERMONT DEPARTMENT OF ENVIRONMENTAL CONSERVATION

CHECK DAM

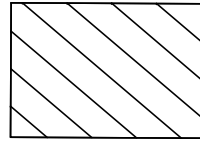
NOTES:
REFER TO "THE VERMONT STANDARDS & SPECIFICATIONS FOR
EROSION PREVENTION & SEDIMENT CONTROL -2006- "FROM
THE VT AGENCY OF NATURAL RESOURCES FOR ADDITIONAL
GUIDANCE.

REVISIONS	
MARCH 21, 2008	WHF
JANUARY 8, 2009	WHF

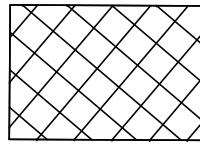
THIS WORK SHALL BE PERFORMED IN ACCORDANCE WITH
SECTION 653 FOR TEMPORARY STONE CHECK DAM, TYPE I (PAY
ITEM 653.25)

REV. NO.		DATE:		 RENAUD BROS. INC. 285 FT. BRIDGMAN RD. VERNON VT., 05554 PH. (802) 257-1585 FAX. (802) 257-1508	SHEET NAME: EPSC DETAILS 3 BRIDGE 52	
					PROJECT NAME: WINHALL	
					PROJECT NO: STP CULV (31)	
					DRAWN BY: CE	
					CHK'D BY:	
				DATE: 04/16/2015		SHEET NO. 6 OF 8

IMPACTS BELOW ORDINARY HIGH WATER



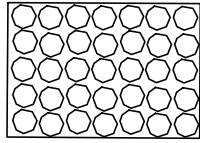
TEMPORARY IMPACTS BELOW OHW: 311 SF



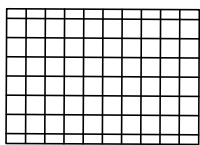
PERMANENT IMPACTS BELOW OHW: 1378 SF

TOTAL IMPACTS: 1689 SF

WETLANDS IMPACT

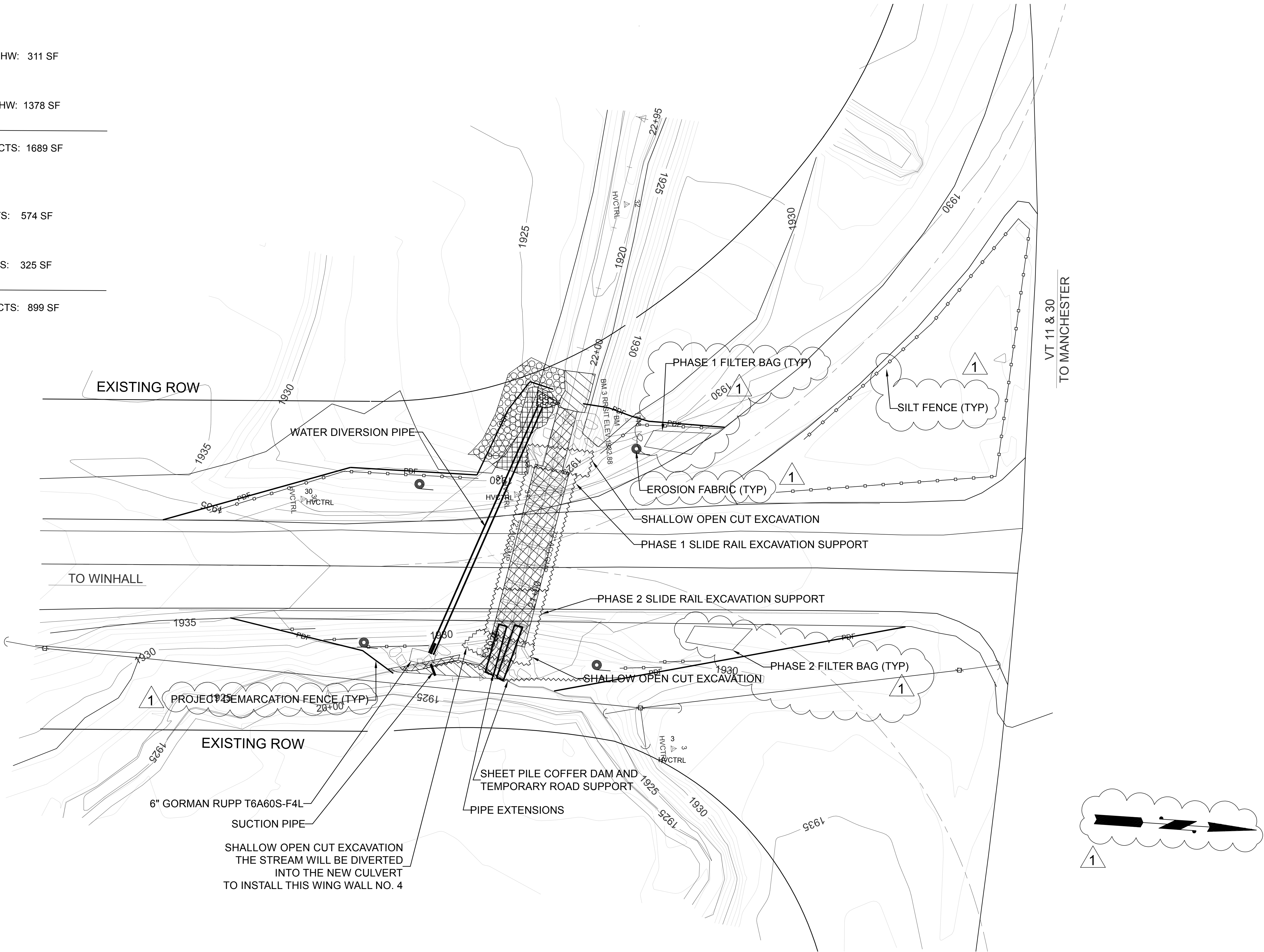


WETLANDS SECONDARY IMPACTS: 574 SF



WETLANDS PERMANENT IMPACTS: 325 SF

TOTAL IMPACTS: 899 SF



BRIDGE 52 PROJECT IMPACTS PLAN 1
SCALE 1" = 20'-0"

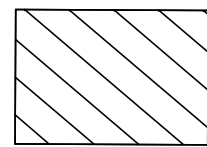
REV. NO.	DATE:
1	05/06/15

R
B
I

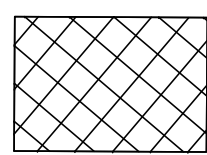
RENAUD BROS. INC.
285 FT. BRIDGEMAN RD. VERNON VT., 05554
PH. (802) 257-7383 FAX: (802) 257-7308

SHEET NAME: BRIDGE 52 PROJECT IMPACTS PLAN 1		
PROJECT NAME: WINHALL		SHEET NO. 7 OF 8
PROJECT NO: STP CULV (31)		
DRAWN BY: CE	CHK'D BY:	DATE: 04/16/2015

WETLANDS BUFFER IMPACTS

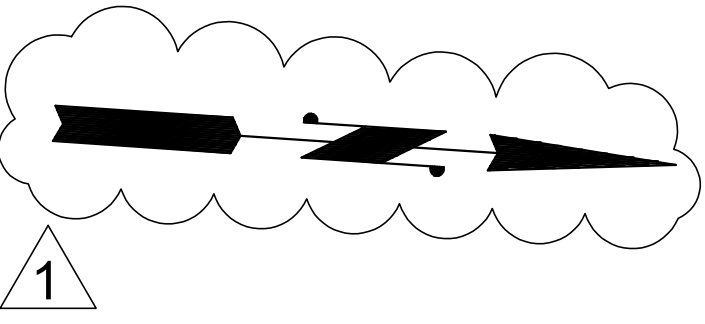
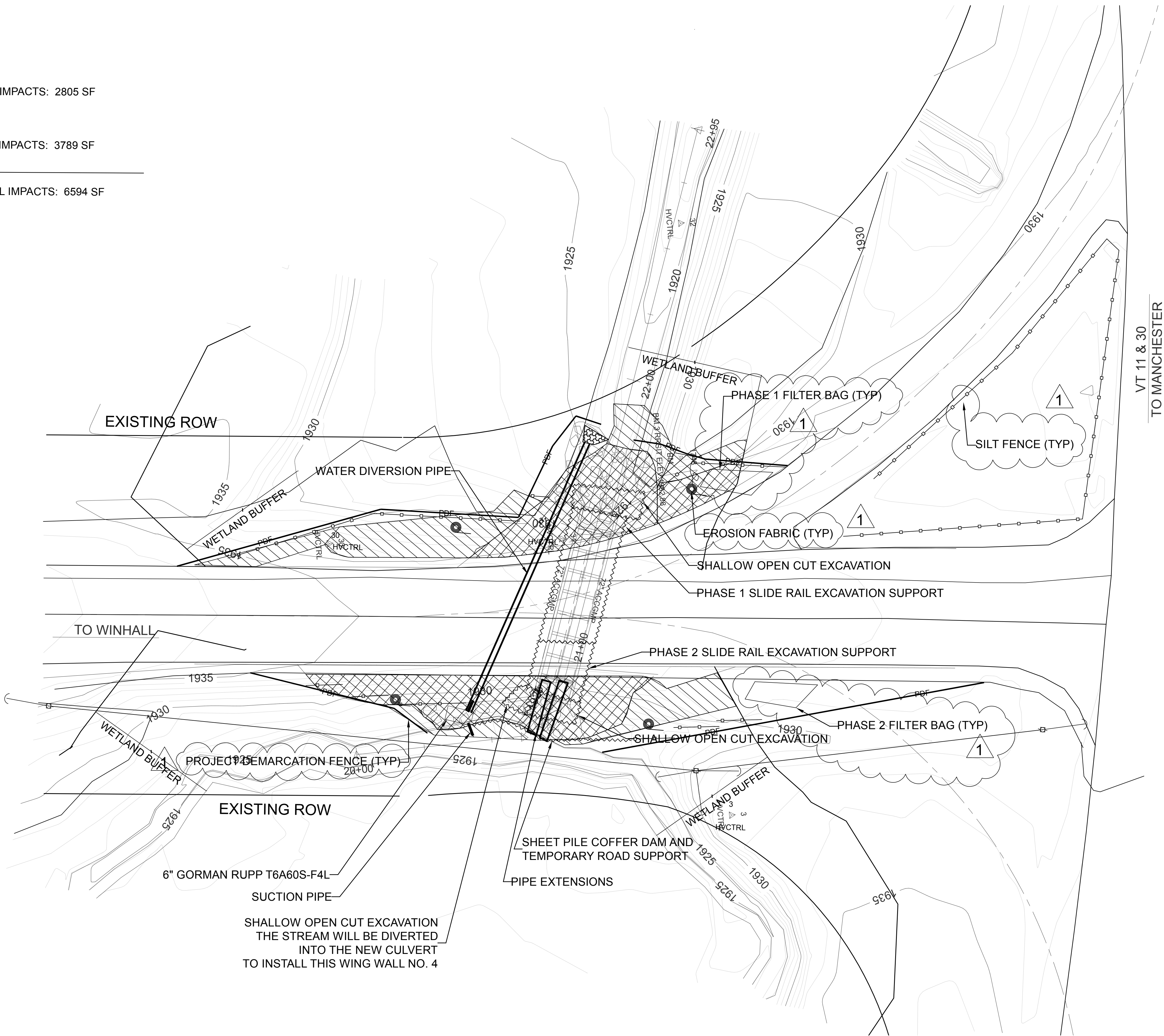


WETLANDS BUFFER SECONDARY IMPACTS: 2805 SF



WETLANDS BUFFER PERMANENT IMPACTS: 3789 SF

TOTAL IMPACTS: 6594 SF



BRIDGE 52 PROJECT IMPACTS PLAN 2
SCALE 1" = 20'-0"

REV. NO.	DATE:
1	05/06/15

RENAUD BROS. INC.
285 FT. BRIDGEMAN RD. VERNON VT., 05554
PH. (802) 257-7383 FAX (802) 257-7308

SHEET NAME: BRIDGE 52 PROJECT IMPACTS PLAN 2		
PROJECT NAME: WINHALL		SHEET NO. 8 OF 8
PROJECT NO: STP CULV (31)		
DRAWN BY: CE	CHK'D BY:	DATE: 04/16/2015

OFF-SITE ACTIVITY EXEMPTION RECORD



To be completed by the Contractor and filed with the Resident Engineer.

Check the appropriate exemption category from the boxes below.

Staging Area Exemptions

The placement of construction trailers, equipment, and/or non-erodible materials

- ☒ On existing paved or gravel surfaces which will not require any additional earth disturbance

Borrow Site Exemptions

- ☐ Existing, in-use gravel pits which have an Act 250 Permit as long as the use does not modify the conditions of said permit (Act 250 Permit # provided by Contractor)
- ☐ Existing, in-use, commercial gravel pits that are "Grandfathered" from the Act 250 Permit Review Process as long as a landowner signature is provided
- ☐ Inter-project Material Usage - The use of surplus materials from one project as borrow for another in which the owner and contractor are the same in both projects and neither involve work outside the respective contract construction limits

Waste Disposal Exemptions

- ☐ The use of project generated Solid Wastes to build the same project, or another project owned by the same entity
- ☐ Batch plants for recycling of materials and subsequent re-use
- ☐ The disposal of any (erodible or non-erodible) materials in an existing shed at any public transportation facility to which the material will be stored for later re-use
- ☐ Existing, in-use gravel pits which have an Act 250 Permit as long as the use does not modify the conditions of said permit (Act 250 Permit # provided by Contractor)
- ☐ Existing, in-use, commercial gravel pits that are "Grandfathered" from the Act 250 Permit Review Process as long as a landowner signature is provided
- ☐ Inter-project Material Usage - The use of surplus materials from one project as borrow for another in which the owner and contractor are the same in both projects and neither involve work outside the respective contract construction limits
- ☐ The disposal of hazardous materials at a facility which has been reviewed and approved by the Agency's Hazardous Materials Specialist

Project Name: Peru STP SCRP (4) / Winhall STP CULV (31)

Proposed Area Name: Bromley Parking Lot

Landowner Signature: BILL CHAMBERS PRESIDENT / Town Bromley NH

Act 250 Permit # (for Existing, In-use sites) _____

Act 250 Grandfathered Signature _____
(Owner or authorized representative)-



OFF-SITE ACTIVITY EXEMPTION RECORD



To be completed by the Contractor and filed with the Resident Engineer.

Check the appropriate exemption category from the boxes below.

Staging Area Exemptions

The placement of construction trailers, equipment, and/or non-erodible materials

- ☒ On existing paved or gravel surfaces which will not require any additional earth disturbance

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Waste Disposal Exemptions

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- ☐ Batch plants for recycling of materials and subsequent re-use
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- ☐ Inter-project Material Usage - The use of surplus materials from one project as borrow for another in which the owner and contractor are the same in both projects and neither involve work outside the respective contract construction limits
- ☐ The disposal of hazardous materials at a facility which has been reviewed and approved by the Agency's Hazardous Materials Specialist

Project Name: Peru STP SCRP (4) / Winhall STP CULV (31)

Proposed Area Name: Bromley Recycle Area


Landowner Signature: Bill Carvens President/Gen Bromley Mtn

Act 250 Permit # (for Existing, In-use sites) _____


Act 250 Grandfathered Signature _____

(Owner or authorized representative)-

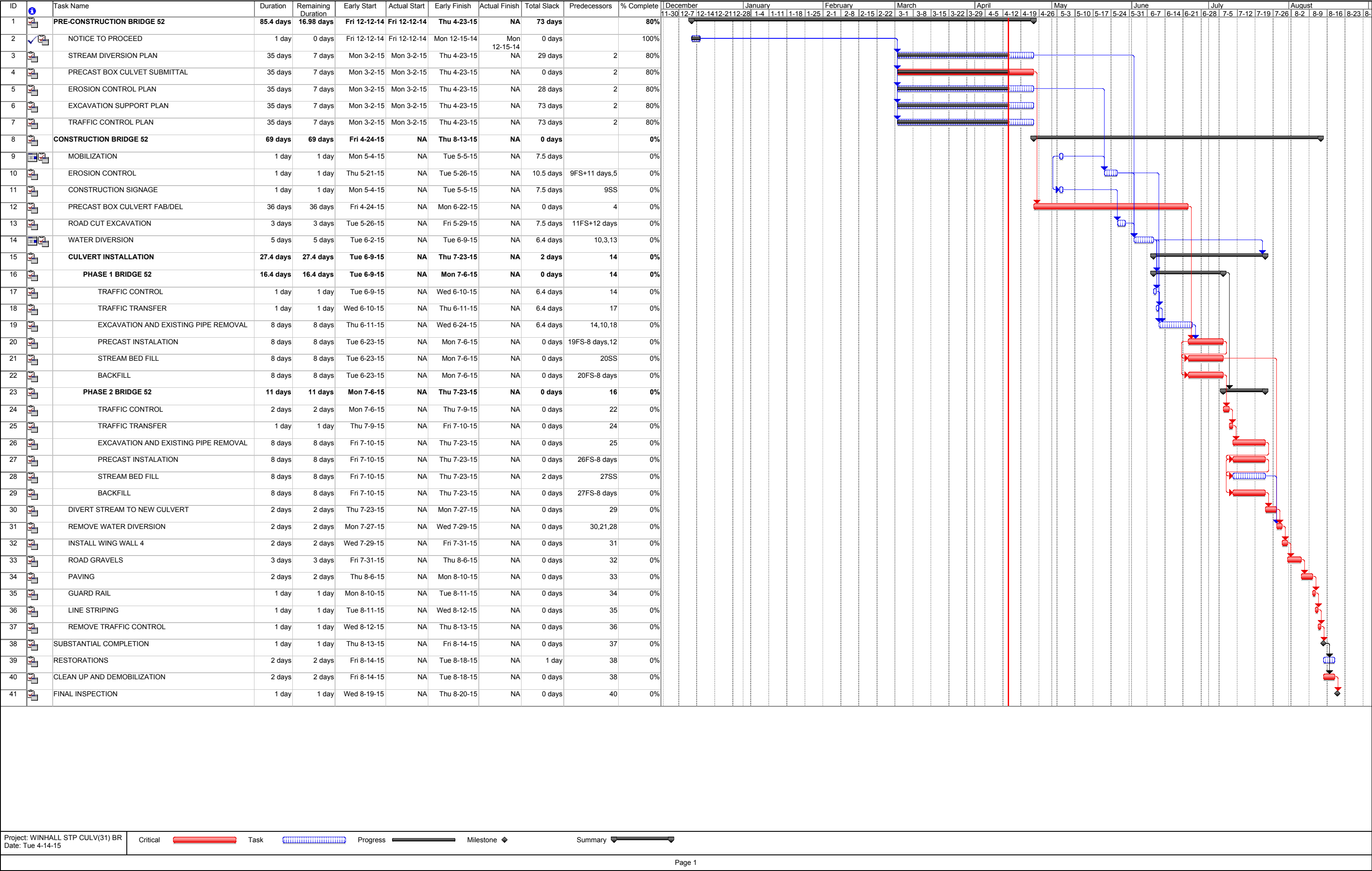


			EPSC Plan Inspection Report (Non-Jurisdictional and Low Risk Projects)		
Project Name:			Date:		Time Since Last Storm:
Inspector:			On-Site Coordinator: (signature required)		
Measure Inspected	Y	N	STA/Off	Corrective Action (CA) Required	Date CA Occurred
Boundary Limits					
Site boundary markers are up and visible					
Disturbance is only occurring within marked boundaries					
Disturbance Area Limit					
Only acreage listed on <i>Authorization to Discharge</i> is disturbed at one time					
Stabilized Construction Entrance/Exit					
Off site tracking of sediment prevented					
Sediment Barriers					
Measure has been installed properly and is functioning as designed					
Accumulated sediment < ½ height of measure					
Diversion					
Upland stormwater is diverted around the work area					
Channelized Runoff					
Check structures are in place, extend the width of the channel, and have capacity to retain sediment in the next storm event					
Channels are stable with no erosion					
Exposed Soils Stabilization					
Seed and mulch, and/or matting placed in accordance w/ permit requirements and/or Specifications					
Soil is seeded and mulched or covered in erosion matting within 48 hours of final grade					
Winter Stabilization					
After Sept. 15' all disturbed areas are seeded & mulched to 3" deep or covered w/ matting					
For ongoing construction, exposed soil is mulched prior to forecasted events					
Dewatering Treatment					
Measure is preventing a discharge of turbid water from leaving the site					
Accumulated sediment is removed to allow sufficient treatment					

* Additional Measures and Discharges shall be reported on the back side of this form.

			EPSC Plan Inspection Report (Non-Jurisdictional and Low Risk Projects)		
Measure Inspected	Y	N	STA/Off	Corrective Action	Date Taken
Additional Measures					
Discharges Noted					

* If there is a discharge of visibly discolored stormwater from the construction site to waters of the state, the On-Site Plan Coordinator shall inform the Resident Engineer and take corrective action and report the discharge in accordance with Section 6.1 of Permit 3-9020.



Charlie Ezequelle

From: McIntosh, Mindon (Buffalo) [mindon.mcintosh@aecom.com]
Sent: Monday-May 04-2015 3:35 PM
To: cezequelle@gmail.com; renaudbr@sover.net
Cc: ron.lemaire@state.vt.us; acentofranchi@eivtech.com
Subject: FW: Winhall STP CULV(31) EPSC Plan Review
Attachments: EPSCPlanContractorChecklist.pdf

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NETTCP Soils & Aggregates
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Suite 203
Clifton Park, NY 12065

www.aecom.com

From: Lemaire, Ron [Ron.Lemaire@state.vt.us]
Sent: Friday, May 01, 2015 2:33 PM
To: McIntosh, Mindon (Buffalo); acentofranchi@eivtech.com
Subject: FW: Winhall STP CULV(31) EPSC Plan Review

From: Jacqueline Dagesse [<mailto:jdagesse@eivtech.com>]
Sent: Wednesday, April 29, 2015 7:16 PM
To: Lemaire, Ron
Cc: Farley, William; Mackintosh, Mark
Subject: Winhall STP CULV(31) EPSC Plan Review

Hi Ron,

We reviewed the Winhall STP CULV (31) EPSC Plan, and have the following questions / comments:

- It appears that some detail was added to the construction sequence within the existing EPSC narrative. However, we also need to have Renaud Brothers describe EPSC measures which would be used for those phases in more detail.
- In the EPSC narrative they mention that they will need to dewater. I did not see any dewatering locations called out on the plansheets. We need to have this information included.
- The EPSC plansheets need to include resource information, stationing and a north arrow.
- Who is the OSPC? What is their contact information?
- We need to have a description on the proposed offsite activities within this submittal.
- The schedule and inspection form were not part of this submittal.

I have attached the EPSC checklist for Renaud Brothers to use in completing their submittal. This information is required for an EPSCP submittal to be reviewed and accepted.

Jacquie

--

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